

Claims

A method for preventing or treating actinic keratosis comprising applying to the affected skin surface an amount of a composition effective for preventing or treating actinic keratosis, said composition comprising a hydroximic acid derivative of the formula

$$R^{3}$$
— A — C = N — O — CH_{2} — CH — CH_{2} — N
 R^{2}
 I

wherein

 R^1 is a hydrogen atom or a C_{1-5} alkyl group;

R² is a hydrogen atom or a C₁₋₅ alkyl group, a C₃₋₈ cycloalkyl group or a phenyl group, optionally substituted by a hydroxy group or a phenyl group; or

R¹ and R² together with the nitrogen atom to which they are attached form a 5 to 8 membered saturated or unsaturated ring that optionally comprises one or more further nitrogen or oxygen atoms, wherein said ring can be optionally condensed with a benzene ring;

R³ is a hydrogen atom, a phenyl group, a naphthyl group or a pyridyl group wherein said groups. can optionally be substituted by one or more halo atoms or C₁₋₄ alkoxy groups;

A is a group of the formula

wherein

R⁴ is a hydrogen atom or a phenyl group;

R⁵ is a hydrogen atom or a phenyl group;

m has a value of 0, 1 or 2; and

n has a value of 0, 1 or 2;

or a physiologically acceptable acid addition salt thereof as the active ingredient.

2. The method of claim 1, wherein in the compound of the formula (I) R^1 and R^2 together with the nitrogen atom to which they are attached form a piperidino group, R^3 is a pyridyl or a phenyl group, A represents a group of the formula \underline{a} ,

wherein

R⁴ is a hydrogen atom or a phenyl group;

R⁵ is a hydrogen atom or a phenyl group; and m and n have a value of 0.

- 3. The method of claim 1, wherein the compound of the formula (I) is O-(3-piperidino-2-hydroxy-1-propyl)nicotinic amidoxime or an acid salt thereof.
- 4. The method of claim 1, wherein the active ingredient is present at 0.1 to 30% by mass of the composition.

- 5. The method of claim 1, wherein the active ingredient is present at 5 to 15% by mass of the composition.
- 6. The method of claim 2, wherein the active ingredient is present at 5 to 15% by mass of the composition.
- 7. The method of claim 3, wherein the active ingredient is present at 5 to 15% by mass of the composition.
- 8. A method for preventing or treating a pathological condition of the skin selected from the group consisting of dry skin, polymorphic light exanthema, toxic photopathology, photo-allergy, solar atrophy, stria migrans, elastoma diffusum, X-ray dermatitis, gouty polychondritis and decubitis ulcer, comprising applying to the affected skin surface an amount of a composition effective for preventing or treating said pathological condition of the skin, said composition comprising a hydroximic acid derivative of the formula

$$R^{3}$$
— A — C = N — O — CH_{2} — CH — CH_{2} — N
 R^{2}
 I

wherein

R¹ is a hydrogen atom or a C₁₋₅ alkyl group;

 R^2 is a hydrogen atom or a C_{1-5} alkyl group, a C_{3-8} cycloalkyl group or a phenyl group, optionally substituted by a hydroxy group or a phenyl group; or

R¹ and R² together with the nitrogen atom to which they are attached form a 5 to 8 membered saturated or unsaturated ring that optionally comprises one or more further nitrogen or oxygen atoms, wherein said ring can be optionally condensed with a benzene ring;

R³ is a hydrogen atom, a phenyl group, a naphthyl group or a pyridyl group wherein said groups can optionally be substituted by one or more halo atoms or C₁₋₄ alkoxy groups;

A is a group of the formula

$$R^4$$
 R^5 $CH)_m$ $CH)_n$ \underline{a}

wherein

R⁴ is a hydrogen atom or a phenyl group;

R⁵ is a hydrogen atom or a phenyl group;

m has a value of 0, 1 or 2; and

n has a value of 0, 1 or 2;

or a physiologically acceptable acid addition salt thereof as the active ingredient.

9. The method of claim 8, wherein in the compound of the formula (I) R^1 and R^2 together with the nitrogen atom to which they are attached form a piperidino group, R^3 is a pyridyl or a phenyl group, A represents a group of the formula \underline{a} ,

$$\begin{array}{ccc} R^4 & R^5 \\ \hline - (CH)_{m} - (CH)_{n} & \underline{a} \end{array}$$

wherein

R⁴ is a hydrogen atom or a phenyl group;



R⁵ is a hydrogen atom or a phenyl group; and m and n have a value of 0.

- 10. The method of claim 8, wherein the compound of the formula (I) is O-(3-piperidino-2-hydroxy-1-propyl)nicotinic amidoxime or an acid salt thereof.
- 11. The method of claim 8, wherein the active ingredient is present at 0.1 to 30% by mass of the composition.
- 12. The method of claim 8, wherein the active ingredient is present at 5 to 15% by mass of the composition.
- 13. The method of claim 9, wherein the active ingredient is present at 5 to 15% by mass of the composition.
- 14. The method of claim 10, wherein the active ingredient is present at 5 to 15% by mass of the composition.